JOHN TALLANT'S EXPERIENCE IN THE ARID BELT.

John Tallant was born on a rough, cold, clay farm lying low on the flanks of Mount Kearsarge. Cold and hard was the land on the northern slope of the mountain, but no colder nor in any degree harder than the uncompromising Presbyterian religion believed in and strictly lived up to by the parents of John Tallant. His father was hard, cold, selfish; an unlovable man. His mother was equally unlovable. There was practised in the dingy farm house, that stood with its shabbiness partially veiled among a grove of maple trees, a rigid economy that was necessary on account of the meagre returns of the mountain farm. John Tallant was brought up to a life of toil. In summers he worked by the side of his father, to enable the family to exist. At the age of twenty-one he was a tall, sinewy man. During the winters he had attended one of the endowed schools so common in New Hampshire. He had a parrot-like knowledge of the text books he had studied, but knew nothing. The heavy, monotonous toil he had performed had strengthened his body, but dulled his brains. An original thought he had never had. On his twenty-second birthday his father called him aside and told him that he was his own master. He gave him a little sum of money, and plainly indicated to him that the dingy farm house was uncomfortably full of children, and suggested that John go West and make a home for himself. The young man was turned adrift. He, following his father's advice, journeyed westward. His money was exhausted when he reached northern Ohio, and he found employment as an agricultural laborer on a large farm. For three years he worked faithfully. While working, John became acquainted with a daughter of a tenant of a small farm adjoining the estate, and gradually grew to love her. Mary Clark was a hard-working young woman of scanty education and boundless piety. She returned his love, and promised to marry him. She worked in the dairy on the estate. Cold-blooded, unimaginative, industrious, and economical, she promised to make a fit wife for young Tallant. Their love apparently hardened them, made them more selfish, and instead of opening their hearts and hands in very joy, it closed them tightly.

When the united savings of John and Mary amounted to $900, they married. Buying a team of horses and some agricultural tools, they rented a farm and put in a crop. Faithfully they cultivated the soil. Harvest over and fall wheat sown, the harvested crops were sold. Much to their surprise they discovered that the profit of the year's work was in the one-third of the grain they, by the terms of their lease were compelled to pay as rent. Their actual earnings, over and above the cost of their simple food and plain clothing, for the season's work were but $47. For the first time John Tallant's mind was busy with original thoughts. Nightly, throughout the long, cold winter of northern Ohio, he and his wife discussed the advisability of emigrating to the Western plains. Daily, as John, who had obtained a contract to chop cord wood, felled trees and cut them into proper lengths, he thought of the West, the land of cheap farms and bountiful crops; and the resolution to emigrate slowly took shape. The night he finished his contract he walked home over the frozen snow, resolute in the determination to emigrate to the Western plains. A feeling of mild exultation filled his heart. He was light of foot, confident of the future, a little surprised at his courage in taking so decided a step, and, with the queer conceit of an ignorant man, was pleased at the surprise he thought his neighbors would manifest when they heard he was going West. Arriving at home he told his wife in a few words of his determination. After their simple evening meal had been eaten and the dishes washed, they drew their chairs to the fire and wonderingly talked over the, to them, important step they were about to take. The next day John sold his share in fifty acres of winter wheat he had sown to the man who owned the farm he rented. Heavy snow storms in rapid succession rendered the roads impassable for wagons and delayed their departure.

John Tallant almost daily received pamphlets, statistics, and highly colored and poorly printed maps by mail from Chicago. These valuable papers related to the lands that had been given to various railroad corporations by a beneficent Republican Government. From the frozen North came reports of the wonderful fruitfulness of a land that was generally supposed to have but two seasons—three months summer and nine months winter—that surprised Tallant; also, maps circled with heavy black lines, with Duluth as a centre, showing the northern limits where various cereals could be grown with profit, and sinuous lines isothermal, drawn at random by the draughtsman, and cunningly marked at points where the foot of white men had never trodden, "temperature of France, Lombardy, and the wheat-growing districts of southern Russia." Ignoring the influence of the Gulf Stream on the climate of northern Europe, and with deliberate intention to deceive ignorant men, these maps were marked, in large letters above dense black lines, with the latitude of Paris, London, Edinburgh, and Stockholm. From the West came similar maps, colored like geological bird's-eye views of a mineral country, with the yellow of the corn belt extending into the arid zone, and a greenish cast, indicating wheat, over the whole of the desert lands and high up on the foothills of the Rocky Mountains. From the Southwest came maps startling in the vividness of their coloring. The literature that accompanied these different maps, which exhibited the agricultural resources of the American Desert, was of a novel character. Each road, according to its own statement, owned land that was far superior to that in the original garden of Eden. The land owned by other companies was generally worthless and subject to drawbacks, such as invasions of Rocky Mountain locusts and hot southwest winds. No man entering on those lands could expect to make a living for himself and family by agriculture. Every pamphlet told the truth about the land belonging to other corporations, and lied about its own. The deceptiveness of those issued by the Union Pacific Railroad proved the most alluring, and the Tallants decided to make their home along the line of that road.

On the 3d of March, 1873, they left Ohio in their canvas-covered wagon. They arrived at the selected point about the 1st of May. The grass had just begun to pierce through the fire-swept prairie. Going some twenty miles north of the railroad, they selected a quarter section of fertile bottom land in a narrow valley, a few miles west of the 100th meridian. A timber-fringed creek, with sluggish and sloughlike water, crossed the land. On a knoll not far from this stream they dug a dugout and covered it with plank.

John Tallant and his wife were young, strong, industrious, having no vices, and religious. They were determined to succeed in creating a home for themselves. They had household furniture, simple, but sufficient, three strong young horses, a wagon, and $600 in money. They were secure in the knowledge that they would not have to pay taxes for seven years on their real estate, and none on personal property, unless they owned in excess of the constitutional exemption. If a young couple ever started fair in life on the eastern edge of the Arid Belt, the Tallants did.

During May, June, and into July, John Tallant ploughed the tough prairie sod. His wife laboriously chopped the ploughed sod with an axe at intervals of four feet on every fourth furrow, and in the strip planted the yellow dent corn of the West. At the end of the breaking season in July, they were pleased to find they had broken and planted to corn eighty acres of ground. Nightly they estimated the yield, using the figures furnished by the railroad company. According to these estimates, they were sure to harvest at least 2,500 bushels of corn, worth thirty cents per bushel. They were content. The corn looking promising, John, after consulting with his wife, bought three brood sows, intending to raise pigs. They also bought two cows. Mary was to make butter for sale in the railroad town twenty-five miles south of them.

During early July a heavy rain fell. This insured the maturity of the early planted corn. From July 10 until late in the fall no rain fell. For no long period did the wind steadily blow from any quarter. Occasionally a fierce wind, a blast from the arid plains and sand hills far to the south, where the air boils in barren gullies, or rolls in waves of heat over the heated earth, swept up their valley, causing the mercury to spring upward in the vacuum tube, but this sirocco from the desert was soon overcome by the cool winds sweeping southward from the frozen north. Thunder storms were of almost nightly occurrence. To the south vast mounds of black vapor would push up briskly, and though the wind blew from that direction, they stood steadily high above the horizon, like a mountain range immovable. As the intermittent throbbing of the electrical heart of the storm caused the dark clouds to blush luridly, the arterial lightning veined them in irregular lines of intense white. The faint roar of distant thunder floated tremblingly to them as they stood in front of their dugout, anxiously awaiting the coming of the longed-for rain. To the north, to the east, to the west, similar storms arose; but, much to the surprise of the Tallants, they did not sweep onward with the fierce winds with which they were generally accompanied, but seemed to be unable to advance beyond a certain line. Going to town, John Tallant was assured by the oldest inhabitant—he had been in the country three years—that the season was phenomenal in its dryness. This partial drought destroyed forty acres of their corn, and shortened the yield of the other forty acres in direct relation to its time of planting. When the corn was cut, they estimated that they had 600 bushels instead of 2,400, confidently expected. Not disheartened by the yield of sod corn in a phenomenally dry year, John Tallant in the fall ploughed the prairie he had broken preparatory to sowing wheat the next spring.

The grass was frost-killed and the sad, desolate appearance of the brown plains, over which the cold north winds sighed mournfully or shrilly whistled, did not, owing to their unimaginativeness, cause the Tallants to have the peculiar feeling of desolateness so trying to the cheerfulness of many men and women who live on the desert, forcing them into evil ways in the vain endeavor to escape from their surroundings. In late November, when the earth was frost-bound and the rivers fringed with ice, the weather was perfect, clear and cold were the days and nights. Hanging persistently and lowly against the northern horizon was a smoky mist, so slight that it was as if a grayish veil were drawn across the distant sky. December came, and the mornings were very cold. As yet no snow had fallen. The air was filled with ice crystals of mornings. The rising sun was guarded by sun dogs, that disappeared as the sun grew strong, to reappear as it sank toward the west.

One morning an icy north wind rose with the sun, causing the frost-coated grass in the valley to wave in sparkling billows. As the sun mounted higher and higher the wind strengthened, and by noon a strong wind, cold and piercing, was sweeping across the country. The grayish veil hanging across the northern horizon changed color to bluish black, and slowly pushed upward. Standing in front of their dugout, the Tallants admired the country. The nostrils of Mrs. Tallant quivered slightly. She turned to her husband, saying she smelt smoke, as if the leaves of a distant pine forest were burning. He also detected the odor. They turned their stock loose. The horses and cows strayed off to the hills to graze on the nutritious buffalo grass. The brood sows wandered up the creek intent on building warm nests for their expected young. By evening the black cloud that had slowly mounted half way up to the zenith was lurid with the reflected light of a great prairie fire. The horses and cattle came home. They were slightly excited, and frequently sniffed of the smoke-charged air. The hogs, engaged in house building, failed to come home, and as it was dark, it was useless to search for them. The Tallants were a little anxious, but utterly failed to understand the danger that threatened their neighborhood. Their buildings were protected by ploughed fields, and they thought the fire could not damage them, and they naturally wished to see a great prairie fire. Sweeping out of the north, and distinct from the shrill sound of the wind, they heard a dull roar, as if many muffled drums were beating lowly but steadily. Also a faint crackling sound, as if lightly charged rifles were being briskly handled on a distant skirmish line. Above the crest of the distant divide a tongue of flame shot up, flared for an instant through the dense clouds of smoke, then disappeared. In another place a flame, a lurid exclamation point, was blazoned against the dark sky. Suddenly the depressions of the outline of the crest of the distant hills, distinctly visible against the lurid sky, were a tossing mass of dull red flames; then the higher crests were one by one bathed in fire, and the northern horizon for miles glowed brightly. Denser grew the air, smoke-laden, dust-thickened. The fire rapidly advanced. It descended into the high grass in the valley. The wind with a gust increased in violence. The black clouds that had hung wall-like against the northern sky, suddenly released from their bonds, pushed southward with great velocity. Particles of fine, tiny crystals of snow shot through the air in almost horizontal lines. The temperature of the air fell instantly, and it was bitter cold. An arctic blizzard drove a great prairie fire to the south. Masses of flame as large as a hogshead bounded high into the air. Caught by the fierce wind, they would be torn into fragments and dashed into the unburnt grass far beyond the line of fire. No longer was the head fire marked by a simple line; it was a sea of red-capped billows, breaking into fiery spray, that the wind ever whisked far beyond. The fire struck the broken prairie on which the corn shocks were standing. Again and again balls of fire shot forth from the tossing sea of flame, but failed to strike. A long, flexible arm of fire, beaten to the ground by the wind, reached far out over the barren land, and with a swinging, life-like motion struck one of the corn shocks with its extremity. Instantly the shock blazed brightly. Of dozens of these fiery arms that reached out and sought with life-like intelligence to destroy, only three struck corn shocks. The burning stalks and husks were whisked through the air, and lodging on shocks in the line of the wind set fire to them. Three rows across the eighty-acre field were consumed. The fire swept to the south, and the Tallants went to bed knowing that they had lost a large portion of their corn, and fearing that their swine had been burned to death. Morning came, and with it a revelation of the fierceness of the winter storms on the Western plains. Three days passed before John Tallant dared venture in search of his missing swine. He found their charred remains by the creek, where the grass had stood the highest. The hardworking couple were not discouraged by the losses experienced by the fire, and the repulsiveness of blackened, barren prairie did not in the least oppress them.

The next spring John Tallant sowed the land he had ploughed the previous fall with wheat, and that summer he broke the remainder of his farm. This freshly broken sod Mrs. Tallant planted with corn. The season was a wet one, such as occurs at intervals west of the 100th meridian, and the fertile soil yielded bountiful returns. The wheat threshed out seventeen bushels per acre. The corn averaged twenty-five bushels. The price of wheat was low, and there were but $239 remaining in their hands after paying for a reaping machine and the expenses of the harvest. Corn also was very low. John Tallant received twelve and a half cents per bushel of seventy-five pounds. During the summer they bought five brood sows, and by fall they had twenty-five little pigs. After many consultations they decided to keep the female increase and engage in hog raising, so as to be able to feed their corn instead of selling it for less than the cost of production.

The third spring of their residence in the Arid Belt they sowed eighty acres of wheat and planted thirty-five acres of corn. Thirty-five acres of their farm was low land, along the creek, generally dry enough to graze on, but unsafe to cultivate, as the sluggish waters rose rapidly when heavy rains fell. Fencing five acres of this land, including a knoll and living water for a hog pasture, they turned their swine loose. After this improvement was made they counted their money and found they had $173 remaining. The wheat promised to yield bountifully. The corn, though a little backward, was of excellent color, and the stand was good. The hogs increased rapidly. Fortune seemed to smile on this hard-working couple. Throughout the neighborhood, peopled by poor, industrious farmers, the Tallants were spoken of as being forehanded. Lank men and toil-worn women came to see them o' Sunday afternoons, and the former, while whittling sticks in the shade of the dugout, approved of the hog-raising business, and assured their hosts that fortune awaited every man who raised stock. It was a happy spring and early summer for the Tallants. The wheat bloomed and the field waved sea-like in the strong winds. They spoke confidently of building a nice frame house that fall. Their plans of the future were frustrated by the Rocky Mountain locusts. These insects, singly excellent fish bait, collectively a devastating horde, destroyed in one day the wheat and corn. The hogs, that they expected would secure their firm financial standing, were sold to Iowa stock men, who, learning of the disaster that had fallen on the farmers of the Arid Belt, flocked into the country to buy the stock, that had to be sold at any price. This disaster was followed by a consuming drought. The grass dried, the creek stood in stagnant pools, green-coated and slimy; the ground was baked into bricklike hardness, and farm work was impossible. The garden, that Mrs. Tallant had taken great pride in, contained a few short crackel cabbage stalks and a few dried tomato vines.

Courageously the Tallants faced the disaster. Eagerly they adopted the absurd theory that the climate of the high plains could be altered by the works of man. Strenuously they insisted, when talking to their neighbors, that Iowa and Illinois had been subject to long continued droughts and hot southwest winds; but that the cultivation of a few inches of the surface soil of a limited area of their lands had changed the climate of those States from one of sharp extremes of heat and cold, of drought and excessive moisture, to an equable one. Hundreds of poor men, who had staked their little fortunes in the Arid Belt, and who with praiseworthy industry were striving to create homes for themselves, greedily adopted the unsound railroad theory of changes to be wrought in a climate that is inexorable on account of the geographical position of the country.

The next spring wheat was again sowed and corn planted. This year the crops were again good, and wheat brought a fair price. The corn crop was an excellent one, and, though the price was low, the Tallants were not obliged to sell. They wisely decided to crib the corn and always to keep a year's crop of corn on hand. The building of the corn cribs reduced the sum of money they received for their wheat sharply.

The following spring the usual crops were sown and planted. Encouraged by the appearance of the growing corn, the Tallants again purchased brood sows, and soon had a fair number of hogs on hand. The locusts again swarmed in from the Rocky Mountains, but they had delayed their descent until after wheat was harvested and corn so hardened that they could not injure it. This year the price of wheat was low; corn was almost worthless. It was used for fuel. Hogs were so cheap that it was barely profitable to shovel the low-priced corn out of wagons for them to eat.

School houses had been built and teachers hired. In a community of homesteaders the burden of paying school taxes falls on personal property. The Christian intention to tax John Tallant into the poorhouse was developed in School District No. 29. In vain did he argue against the injustice. It took twenty fat hogs to pay this outrageous tax. The hard-working couple were apparently as far from acquiring a competence as they ever were. It seemed as though it was impossible to accumulate any money. Before the fall ploughing was finished they decided to devote 120 acres to wheat the next season, and to buy on eleven years' credit eighty acres of railroad land adjoining their farm for the purpose of raising corn.

In the sixth spring 120 acres of wheat and five acres of flax were sown. Then the breaking plough was started, and the monotonous work of breaking prairie sod and planting corn with an axe began.

The overproduction of wheat in the United States had affected the price of wheat in the markets of Europe, and the tendency was toward a lower price for the staple that all countries can raise. Steadily, as harvest grew near, day after day, the price of wheat declined at the centres where it is gathered for export. Before the sickle bars had ceased rattling in the fall-sown wheat fields of the Southwest, the crop was known to be the best that had ever been secured. The telegraph carried the news to the centres of the wheat trade, and down went the price. The great operators sent the information to their agents in Nebraska. Tallant, too economical to take a newspaper published at the centres of trade, and content with the *Weekly Tribune* published in his county, knew nothing of the depreciation in the value of breadstuffs. Daily he worked in blind obedience to the Divine command that men live by the sweat of their brows, and daily the stern command of nature that disaster overtakes all men who labor without intelligence and in violation of her laws, drew nearer to execution.

John Tallant's wheat crop was the best one he had ever raised, some twenty-two bushels per acre. The breadth sown in his county was very large; and when the wheat was yellow and fit for the sickle bar, the discovery was made that there were not enough hands in the county to promptly harvest the crop. The poverty-stricken farmers, utterly failing to understand the condition of the crop in the United States and in Europe, bid against each other for harvest hands, and the pay of these men rose from a dollar and a half to three dollars and a half per day. Resolved to save his crop in prime condition so as to obtain the highest prices paid, Tallant hired ten men and bought another reaping machine and another horse. The crop saved and the expenses paid, the money was borrowed from the county bank at 2½ per cent. per month. Tallant thrashed. When the thrashing machines were loudly humming in Nebraska, the price declined to fifty cents per bushel for sound No. 2 new wheat. The bottom being reached, the land grant railroad increased the general distress by adding eight cents per one hundred pounds to their tariff on wheat. Promptly wheat fell to forty-four cents per bushel. This was below its cost of production. Notices to pay his notes, now due, were sent to Tallant, and he was forced to sell his wheat to pay; and having sold all excepting seed for the next year and enough to supply him with flour, he found that he could not meet his obligations.

When in the midst of his wheat harvest John Tallant noticed that a small and beautiful fly, marked with a tiny white diamond on its back, that had been gradually increasing in numbers since he opened his farm, had apparently bred in his spring wheat fields, as the grain tables of his machines were covered with tiny red insects. But they were so insignificant in size that he was not alarmed. The fact of having seen them he mentioned to his wife as a bit of farm news. In August the outer rows of corn adjoining the wheat stubble changed color. The leaves near the ground became dry and had the appearance of having been "fired" by standing in water. This withering of the leaves rose rapidly on the stalks until the outer rows of corn were dead. John Tallant, busy ploughing his wheat stubble, preparatory for the next spring's sowing, noticed the withering of the corn, but thought it was owing to the hot winds that always damage the outer rows of a cornfield on the plains. One Sunday, in early August, a neighbor, who had lived in Illinois, walked slowly toward the Tallant homestead. He was bowed with sorrow. His gait plainly expressed woe. Tallant hastened to meet him and anxiously inquired his trouble. With a dreadful oath prefixed, his neighbor replied: "Chinch bugs, d——m them!" "Chinch bugs! What kind of bugs are they?" Tallant asked. Surprised at the ignorance of the agriculturist from the flanks of Kearsarge, the Illinois farmer took John Tallant by the arm and led him to the cornfield. There he showed him millions of tiny flies, with white diamonds on their backs, and millions of millions of reddish insects, all busy sucking the life out of the corn. Throughout the field was the smell of ancient and unclean bedsteads characteristic of chinch bugs. Tallant listened to the assurances of the Illinois farmer that the insignificant insects would destroy the corn, and smiled incredulously. Boldly his neighbor prophesied that the chinch bugs would totally destroy the crop, and unless the season was wet would destroy the next wheat crop, and every and all crops until a season of excessive rains came. In reply to the bantering inquiry, "What are you going to do about it?" the Illinois farmer tersely said, "I am going to mortgage and skip." The disasters predicted occurred. The chinch bugs destroyed the corn. The next spring, when the wheat was about six inches high, the ground was covered with the full-grown, diamond-marked flies. The Illinois farmer "mortgaged and skipped." The wheat turned out five bushels per acre.

The next fall Tallant was out of money. He had made no corn. He had to sell his hogs, as he had no feed for them. His debts pressed him. The dugout was no longer fit to live in. He proved upon his homestead. After consultation the couple, aged with hard work and poor living, decided to mortgage their farm, and with the money obtained to build a little house, pay their debts, and buy some groceries they were sorely in need of. They hoped to be able to pay off the mortgage in one or two years if they made good crops. It would have been a legitimate transaction in an agricultural country; but in the Arid Belt it was the beginning of the end.

The years 1879 and 1880 were dry. The chinch bugs and the drought destroyed all crops. The Tallants courageously fought against the inevitable. Teams, tools, stock, household furniture, all were covered with chattel mortgages, placed to raise the money to pay the interest on the land mortgage and their taxes, and to buy food. All was in vain. Nature had forbidden the agriculturists to enter into the Arid Belt, and the penalty for disobedience was enforced. Last winter, unable to pay the interest, long overdue, and threatened with foreclosure of chattel mortgages, the unhappy couple, happily childless, concluded that the fight was unequal; that they were the dupes of the railroad company, and that they would abandon the land. One team of horses and a wagon were unmortgaged. The bows were put on and the canvas cover tightly drawn. Bags of meal and flour were packed into the wagon, and their blankets. When the grass began to shoot through the sun-warmed soil in the spring the Tallants drove up the Platte trail, leaving their farm and eight years of wasted life behind them. They sought work in Colorado and found it in Breckenridge. They are now doing well.

FAIR VISIONS OF POETS.

Two Views.

The sobbing waves are lit with gold
Poured from the setting sun;
They are lamenting for the old
Remembered days, dear one.

Ah! they were in another mood,
And laughed at you and me,
As hitherward we came and stood,
When young, beside the sea.

Prayer.

She is praying to the Virgin;
Imaged in the starry niche;
Can the Blessed One resist her
Pleading in a voice so rich?

She is praying to the Virgin,
But to her, alone, I pray,
She, the most exquisite woman
Ever fashioned out of clay.

And the Blessed One will answer,
Though she be of soulless stone,
If the peerless woman's prayer is
Half as fervent as my own.

Parting.

When I came from my dear native village,
To mix with this measureless strife,
Some wished me success in abundance,
Some prophesied well of my life.

But the best-beloved maiden and fairest
Of all in the sweet Southern land
Wished me nothing at all; smiling gently,
She silently pressed my hand.

My Friend's Sweetheart.

I knew the sweetheart of my friend
Before he knew her;
But knew her simply as a friend,
And did not woo her.

I left the sweetheart of my friend
For cities distant;
But with me still, in quenchless dreams,
She was existent.

I met the sweetheart of my friend
Upon returning,
And passionately we embraced,
Our faces burning.

Unhappy sweetheart of my friend!
Oh, wretched poet!
The friend whom I have wronged so much
Must never know it!

A Child's Death.

From the Boston Transcript.

Long waiting, watching for the day
To patience bringeth peace;
When my child sighed his life away,
I felt but his release.

And mine own trouble seemed afar,
Like something long ago!
I looked up to night's ruling star
And felt a new life glow.

Deep in my heart—a certain hope
That faintly beamed before,
As 't were the angel came to ope
And not to close the door.

There is a grief that slowly grows
In storms, through tears, to calm;
Such sorrows blossom late; the rose
Of autumn breathes most balm.

I know what death is now—a friend,
Though oft in hostile guise;
God's messenger, whose lessons lend
New glory to the skies.

T. W. PARSONS.

The Young Love and the Old.

From London Society.

Oh, the young love was sweet, dear,
That dainty dream of ours,
When we could not keep our feet, dear,
From dancing through the flowers;
When hopes and gay romances
Were thick as leaves in spring,
And cares were old folks' fancies,
And joy the usual thing.
Of all youth's visions best, dear,
Of all its golden flowers,
Oh, the young love was the best, dear,
That dainty dream of ours!

Oh, the old love is sweet, dear,
These chill October days,
When we tread, with faltering feet, dear,
The sere and silent ways;
When earth has lost its glory,
And heaven has lost its blue,
And life's a sober story,
And care a comrade true.
Though hopes no longer cheat, dear,
And dreams have lost their sway,
Oh, the old love is sweet, dear,
That gilds the autumn day!

The Comet.

From the Burlington Hawkeye.

Mercy love us!
Far above us!
See the comet slashin' round;
Fifty million
Million billion
Billion miles above the ground.

With a tail,
Like a whale,
See it scoot and whiz and roar;
With its flipper
In the Dipper,
How it rules the Major Bear.

Now it's tryin'
For O'Ryan,
(Irish chap that killed the bull),
And the moon,
Pretty soon,
Gives the comet's tail a pull.

Here and there,
Everywhere,
Restless sprite of sky fleas;
Awful pert,
See it flirt
With Helen Potter's Pleiades.

Unbeliever!
Famine, fever,
Plague and pestilence and war;
Fret and worry,
Trouble, hurry,
That is what a comet's for.

Lots of debt,
Too much wet,
Rain and hail and sleet and flood;
Burning drought,
Torrid south,
Sun-baked fields and seas of mud.

Blood and bones,
Tears and groans,
Gnashing teeth and horrid cries;
Howls and yawls,
Frowns and scowls,
That's about the comet's size.

Everything
It will bring
That is bad beneath the sun;
How it burns!
Here it comes!
Goodness gracious, let us run!

A New York Love Song.

From the Independent.

I love you, Love, for good or ill,
As brown bees love sweet honey;
I love you, Love, soul, heart, and will,
For sombre skies or sunny,
And yet I pause, I falter still,
For, oh! one thought, one doubt doth thrill—
My darling, have you money?

I love you, Love; I love you, Love;
But, oh! you must have money.
A sweet rose is a rose, my Love;
Yet if it holds no honey,
The busy bee he will not stay,
But, humming airs, he flies away,
To find a rose with honey.

CHORUS—I love you, Love; I love you, Love;
But, oh! you must have money.

JOAQUIN MILLER.

Not for the Revised Version.

From Every Saturday.

How dear to my heart was the old family Bible,
That stood on the table so solemn and still,
Where often I've hid anything I thought liable
To get in the hands of my bad brother Bill.

How ardent I've seized it with eyes that were glowing,
And shook its wide pages till out the things fell,
But now all its charming old secrecy's going,
With this new fangled Bible the bookstores all sell,
The new-fangled Bible, the twenty-cent Bible,
This reversed Bible that says Hades for Hell.

The Song of the Cigarette.

From the Retailer.

By Andalusian maiden rolled
In far away Seville,
Smoked by the Spanish knight of old,
While roving through Castile,
Who oft recalled with fond regret
The maid who made his cigarette,
Who fought for fame, but dearer yet
The hand that rolled his cigarette.

'Till roaming to the eastward far
To foreign lands he strayed,
And learned to love a strong cigar
And quite forgot the maid.
Light-hearted knight to thus forget
The maid who made his cigarette!
His love was weak, but weaker yet,
The Spanish maiden's cigarette.

The Fashionable Dance in Boston.

From the Springfield Republican.

O, the pleasant Boston dip,
Dreamy dip!
As through melodious measures merry men and maidens skip;
With their graceful genuflections,
How they come and go in sections!
How calmly in platoons they salaam to the tunes,
More quiet than the Irish [illegible]
Now they sway and slide and slip—
Joneses, Mulligans, De Veres,
And the glory of [illegible] and of station disappears,
As they skip, skip, skip, skip, skip,
'Neath the terror and the tremor of the shaking chandeliers,
As they trip, trip, trip, trip, trip, trip,
To the music of the Boston-ston dip!

The Law and the Gospel.

From the Utica Herald.

At the recent circuit at Johnstown a judgment of $50 was given against the sexton of the First Methodist Church of Gloversville for pushing a man back from the door when he attempted to leave the church before service was over. In the case of a man named Sheldon, an expelled member of the Broadalbin Baptist Church, who had been forcibly removed from his pew in church for making faces at the preacher, the jury decided the Trustees had a right to use force to eject him.

SOME NEW BOOKS.

Tylor's Anthropology.

A trustworthy and effective help to the study of man and civilization is offered to American readers in Appleton's reprint of the popular treatise on *Anthropology* by EDWARD B. TYLOR. The author's aim in this summary of scientific research is to exclude as far as possible all matters strictly technical, and thus reach the great body of readers who have received, or are receiving, the ordinary higher English education. Expounded as it is in this book, the effect of the study of anthropology should be rather to lighten than increase the strain of learning, for it connects into a more manageable whole the scattered subjects taught at schools and colleges. The utility of the new science in this regard is forcibly advocated by Dr. Tylor in his preface. Those who have had any experience in tuition will confirm his statement that very much of the difficulty of learning and teaching lies in the scholar's not seeing clearly what each science of art is for, what its place is among the purposes of life. If he knew something of its early history, and how it arose from the simpler wants and purposes of primitive mankind, he would find himself better able to lay hold of it than when, as usually happens, he is called on to take up an abstruse subject, not at the beginning, but in the middle. The author illustrates this principle by a number of striking instances. The dislike of so many beginners to geometry, as expounded by Euclid, the fact that not one tyro in geometry out of three really understands what he is doing, is largely due to the student not being shown first the practical, common sense starting point where the old carpenters and builders began to make out the relations of distances and spaces in their work. So the law student plunges at once into the intricacies of legal systems which have grown up through the struggles, the reforms, and even the blunders of thousands of years, whereas he might have made his way clearer by seeing how laws begin in their simplest forms, framed to meet the needs of savage and barbaric tribes. Again, when the young scholar has learned something of man's rudest means of conversing by gestures and cries, and thence has been led to see how the higher devices of articulate speech are improvements on such lower methods, he makes a fairer start in the science of language than if he had fallen unprepared among the subtleties of grammar, which look at first sight like arbitrary rules framed to perplex rather than to inform. The specific purpose of explaining all the features of the higher civilizations, by tracing them to their germs in the rudest forms of life, runs through the whole of Dr. Tylor's work, and is carried out with marked success in the chapters on language, writing, the useful and decorative arts, social customs, science, and mythology.

There are, of course, various ways in which men can, and, in fact, do, communicate with one another. They can make gestures, utter cries, speak words, draw pictures, write characters or letters. To what a high point of precision and comprehensiveness gesture language may have been worked up among primitive mankind can be inferred from what we see now among the deaf and dumb. The sign languages of the far West, in which conversation is carried on between hunting parties of whites and natives, and even between Indians of different tribes, may be regarded as surviving dialects of the gesture language. Another important source of materials for a natural, as distinguished from an artificial language, is to be found in emotional cries or tones and imitative sounds. This kind of utterance ought to be, and, in fact, is, understood by all mankind, whatever be the artificial combination of articulate sounds they may happen at other times to use. It is certain that the lower animals, as well as man, make gestures and cries which serve as communications or signals. Human language does not answer its purpose more perfectly than the hen's cluck to call her chickens, or the bellow of rage with which the bull, tossing his head, warns off a dog, or the barking with which a dog signifies his wish to have a door opened. It is worth noticing what large survivals of this primitive language of signs and exclamations may be observed among primitive races. We may add that mothers and nurses use these primitive media of expression in teaching little children to think and speak. It is maintained by some philologists that emotional and imitative sounds are the fountain of all language, and that although most words now show no trace of such origin, this is because they have quite lost it in the long change of pronunciation and meaning they have gone through, so that they are now become mere symbols which children have to learn the meaning of from their teachers. Dr. Tylor, however, is unwilling to accept this theory as a complete explanation of the origin of language; he enumerates, besides the emotional and imitative ways, several other devices by which man has chosen to express thoughts. Yet he admits that, from what is known of man's methods of choosing signs, it is likely that there was always some kind of fitness or connection which led to each particular sound being taken to express a particular thought.

In another chapter Dr. Tylor considers the interesting question, what can be learned from languages as to the history of the nations speaking them, and the races these nations belong to. Of course a man's language is no full and certain proof of his parentage. There are cases in which it is totally misleading, as in the instance of English-speaking negroes in our Southern States. Again, although the Keltic language of the ancient Britons has long since fallen out of use in Cornwall, the Keltic blood remains, and it would be a perversion of evidence to class the modern Cornish men as a pure English race because they speak English. But, although conquest and slavery, migration and intermarriage, interfere from time to time, so that the spoken tongue of a nation can never tell the whole story of their ancestry, still it tells a part of it, and that a most important part. Thus, in Cornwall, the English tongue is a real record of the settlement and gradual preponderance of the English there, though it fails to tell of the race who were in the land before them, and with whom they mixed. In like manner words borrowed from one language by another, while they do not prove a common origin, attest intercourse between the nations speaking them, and often give a clue to the country from which some new product was obtained, or some new instrument, or idea, or institution was learned. Thus in English it is seen by the very words how Italy furnished us with *opera*, and Spain with *mulatto*, how from the Hebrews we have *Sabbath* and *jubilee*, from the Arabs *zero* and *magazine*, while Mexico has supplied *chocolate* and *tomato*, Hayti *hammock* and *hurricane*, Peru *guano* and *quinine*, and even the languages of the South Sea Islands are represented by *taboo* and *tattoo*.

When two languages have not merely borrowed from one another, but have a common descent, the philologist is not content to ascertain a unity of origin by merely looking for a few words of similar sound. On the contrary, he expects to find that, as regards sound, the words of the ancestral language will not only have changed in its descendant tongues, but that they will often have changed according to different rules. Then there is one rule for the Indo-Germanic group and another for the cluster of languages spoken in the South Sea Islands. According to Grimm's law, the English *ten*, *tame* should appear in German with a different initial, *zehn*, *zahm*, while again these should be represented in Latin by *decem*, *domare*. With the same regularity of change, but in a different direction, the sound which in some of the Polynesian languages is *t* is in others *k*; thus, the word *tangata*, which means "man" in New Zealand, appears in the Sandwich Islands under the form *kanaka*. Going beyond the sound of words into their structure, the comparative philologist reckons that when two languages are allied they ought to show such similarity in the roots, and in the putting together, that neither chance nor borrowing can account for the resemblance. Dr. Tylor traces at some length the points of likeness in languages of the so-called Aryan family, and subjects to a similar analysis the languages referred to the Semitic class. All the tongues, however, spoken by white men, it is well to remember, do not fall into the Semitic or Aryan category. The Georgian of the Caucasus, the Basque of the Pyrenees, and several more, are apparently unconnected with either of the great families or with one another.

An anecdote cited by Dr. Tylor helps us to realize the place the art of writing fills in civilized life, by showing how it strikes the barbarian, who has not even a notion that such a thing can be. A South Sea Island missionary tells how once having forgotten a tool, he wrote a message for it with a bit of charcoal on a chip, and sent this to his wife by a native chief, who, amazed to find that the chip could talk without a mouth, carried it for long afterward, hung by a string around his neck, and told his wondering countrymen what he saw it do. So in South Africa, a black messenger carrying a letter has been known to hide it under a stone while he loitered by the way, lest it should tell tales of him, as he had observed it did of whatever was going on. Yet the art of writing, mysterious as it seemed to these rude men, was itself developed by a few steps of invention with which they themselves were perfectly familiar. Had the missionary merely made a picture of the desired tool on the chip it would have carried his message, and the native would have understood the whole business, as a matter of course. Beginning at this primitive stage, Dr. Tylor follows through its whole evolution the history of writing and printing.

Man is sometimes called, to distinguish him from all lower creatures, the tool-using animal. Dr. Tylor points out, however, that the ape tribes that come nearest to ourselves in the prehensile power of the hands exhibit also rudiments of the implement-using faculty. Thus they defend themselves with missiles, as when orangs in the durian trees pelt passers-by with the thorny fruit, and the chimpanzee in the forests is said to crack nuts with a stone. It appears that apes in the Regents Park shell almonds with a smooth pebble precisely as the women do in the south of France. It is probably a better definition of man to call him a tool maker than a tool user. Looking at the various sorts of implements, we see that they were not invented all at once by sudden flashes of genius, but developed by small successive changes, directed to specific purposes out of rude prototypes employed for several kinds of work. A Zulu seen at work scraping the stick that is to be the shaft of his assagai with the very iron head that is to be fixed on it may give an idea what early tool making was like before men clearly understood that the pattern of instrument suitable for a lance head was not the best for cutting and scraping. We should be horrified at the thought of a blacksmith pulling out one of our teeth with his pincers, as our forefathers would have let him do; yet the forceps we expect the dentist to use is only a variety of the smith's tool. In the history of instruments the tools of the mechanics cannot well be kept separate from the weapons of the hunter or soldier, for, in several cases, it will be found that both tool and weapon had their origin in some earlier instrument that served alike to break skulls and coconuts, or to hack at the limbs of trees and of men. It is curious also to observe how the rudest of primitive weapons, the club, survives, as a symbol of power, long after its serious warlike use has ceased, as when the mace is carried as an emblem of the royal sovereignty, and laid on the table during the sitting of Parliament or the Royal Society. We need not say that at the earliest times known of man's life on the earth, pointed and edged instruments of sharp stone are among his chief relics. Even in the mammoth period he had already learned not to be content with accidental chips of flint, but knew how to knock off two-edged flakes. This art of flaking flint or other suitable stones was the foundation of stone implement making, and a good idea of it could be gained from the gunflint makers, who, one or two generations ago, carried on the primeval craft, though with better tools and for a different purpose. The finest flakes discovered among the vestiges of the stone age are such as were not struck off, but forced off by pressure with a flaking tool of wood or horn. In this way, doubtless, were made the beautiful flakes of obsidian, with which the native barbers of Mexico, to the astonishment of Cortez's soldiers, used to shave. Here we may note that the word "celt" has nothing to do with the people called Celts, and is probably a gross misnomer, which will scarcely survive the appearance of a revised version of the Old Testament. The term is taken from the supposed Latin word *celtis* (rendered "chisel") in the Vulgate translation of a verse of Job, but it is believed that "graven with a chisel (*celte*) in the rock" is only a copyist's blunder for "graven surely (*certe*) in the rock;" and if so, then *celtis* and *celte* are purely fictitious words.

As to how simple mechanical powers were first discovered, it is of no use to guess in what rude and early ages men found that stones or blocks too weighty to lift by hand could be pried up and moved along with a stout stick, or rolled on two or three round poles, or got up a long, slender slope more easily than up a short, steep rise. Thus such discoveries as those of the lever, roller, and inclined plane are quite out of historical reach. The ancient Egyptians used wedges to split off their huge blocks of stone, and one wonders that, knowing the pulley as they did, it never appears in the rigging of their ships. A draw well with a pulley is to be seen in the Assyrian sculptures, where also a huge winged bull is being heaved along with levers and dragged on a sledge with rollers laid underneath. The wheel carriage, which is among the most important machines ever contrived by man, must have been invented in ages before history. To appreciate the constructive skill to which the leading nations had already attained in times we reckon as of high antiquity, it is worth while to examine closely the Egyptian war chariots, with their neatly fitted and firmly tired spoke wheels, turning on their axles, secured by linchpins, while the body, pole, and double harness show equal technical skill. In looking for some hint as to how wheel carriages came to be invented, we should pass over the skilled work of Egyptian chariot makers and the Roman carriage builders, and give special heed to the plaustrum, or farm cart of the ancient world. This, in its rudest form, had for wheels two solid wooden drums near a foot thick, and made from a tree trunk cut across, which drums or wheels did not turn on the axle, but were fixed to it; the axle was kept in place by wooden stops, or passed through rings at the bottom of the cart, and went round together with its pair of wheels, as children's toy carts are made. In Portugal the old classical bullock cart moved on this principle is still to be seen, and it is noteworthy how, under changed conditions, the builders of railway carriages have returned to the drum wheel.

Another machine whose history can easily be followed is the mill. The rudest tribe of savages had a simple and effective means ready to hand for powdering charcoal and ochre to paint themselves with, or for the more useful work of bruising wild seeds gathered for food. The whole apparatus consisted of a roundish stone held in the hand and a larger hollowed stone for a bed. Our pestle and mortar still keeps closely to this primitive type. Now, any one using the pestle and mortar will observe that it works in two ways, the stuff being either powdered by striking or ground by rubbing against the side of the mortar. When people took to agriculture, and grain became the chief part of their food, and mealing it the women's heavy task, forms of mealing stones came into use, suited not for pounding, but for grinding only, and doing this more thoroughly. The perfection of such a corn crusher may be seen in the "metate," with its neatly shaped bed and rolling pin of lava, with which the Mexican women crush the maize for their corn cakes, or tortillas. The quern, or hand mill of ancient Europe, in its simplest form, consisted of two circular flat mill stones, the upper being turned by a handle, while the grain was poured in through the hole in the centre and came out as meal all around the edge. The quern is used to this day in the north of Scotland and in the Hebrides, and its essential principle is still preserved in the modern flour mill.

Another group of revolving tools and machines begins with the drill. The simplest mode of twirling the boring stick between the hands is to be seen in fire making. In this clumsy way rude tribes know how to bore holes through hard stone by patiently twirling a reed or stick with sharp sand and water. This primitive tool was improved, both for making fire and boring holes, by winding around the stick a thong or cord, which, by being pulled backward and forward, worked the drill, as the ancient shipwrights, boring their timbers, are described in the "Odyssey." The ingenious plan of using the bow with its string to drive the drill, so that one man can manage it, was already known in the old Egyptian workshops, but the still more perfect Archimedean drill is modern. The turning lathe seems to have had its origin in the drill. To those who have only seen the lathe in its recent improved forms, this may not be clear, but it is recognized by looking at the old-fashioned pole lathes with which the turner used to shape his wooden bowls and chair legs, which were made to revolve by a cord pulled up and down, on somewhat the same principle as the Homeric drill. The foot lathe, with its crank and continuous revolution, superseded this, to be itself encroached upon by the introduction of steam power for driving and even for applying the tool in the self-acting lathe. In examining these and other groups of instruments and machines, Dr. Tylor traces back the development of many of them till their origins are lost in prehistoric ages. It is seldom possible to get at the real author of an ancient invention. Thus, no one knows exactly when and how that wonderful mechanical contrivance, the screw, appeared. It was certainly familiar to the Greek mathematicians, and the screw linen presses and oil presses of classic times look almost modern in their construction.

In looking over the architecture of the world we see that its sources lie too far back for history to record its beginning and earliest progress. Still, the author adduces abundant grounds for believing that in this, as in other arts, man began with the simple and easy before he came on to the complex and difficult. There are many signs of stone architecture having grown out of an earlier wooden architecture. Thus, on looking at the Lykian tombs in the entrance hall of the British Museum, it is noticed that, though they are of hewn stone, their forms are copied from wooden beams and joists, so that the mason shows by his very patterns that he has taken the place of an earlier carpenter. In India there are stone buildings whose columns and architraves are plainly copied from wooden posts and horizontal beams resting on them. Even in the early stone work of Egypt traces of wooden forms are to be seen. When, however, it is alleged that the porticos of Greek temples are copies in stone of older wooden structures, it may with reason be objected that the Parthenon is not really like carpenter's work. The truth, of course, is that the Greeks did not invent their own column architecture, but, taking the idea of it from what they saw in Egypt and other countries, carried it out according to their own genius. It is remarkable that, though the real arch is encountered in the tombs of ancient Egypt, yet the Greek architects of the classic period never took to it. It was left to the Romans to apply it in those imposing structures from which the vaulted roofs, bridges, and domes of the mediæval and modern world have been derived.

In a chapter on the arts of pleasure, Dr. Tylor shows how the musical instruments of the present day may all be recognized in rude and early forms. The rattle and the drum are serious instruments among savages; the former has come down to a child's toy with us, but the latter holds its own in peace and war. Above these monotonous instruments comes the trumpet, which brings barbaric music a long step further on. In the modern orchestra the cornet is a trumpet provided with stops. The pipe, or flageolet, appears in its simplest form in the common whistle, which in the course of time was improved by holes, whereby the player altered the length of his pipe so as to give several notes. The clarionet is a development of the grass-stem, with a vibrating slit or tongue, such as the children cut in the fields in spring. The whole class of musical instruments to which the harmonium belongs work with these vibrating tongues, which by their name of "reeds" still keep up the memory of their origin. Not less primitive are the archetypes in which stringed instruments appear. We might well guess that the strung bow of the warrior would naturally become a musical instrument, but, what is more, it really is so used by the Damara and the Zulu in South Africa. All ancient harps—Egyptian, Assyrian, Persian, even old Irish—seem to have been developed from such a rude music bow. The very form of a grand piano shows that it is a harp laid on one side in a case, its strings being struck with hammers instead of being plucked with the fingers. It is the last step in the process of evolution from the bowstring of the prehistoric warrior.

With equal distinctness Dr. Tylor traces back those symptoms of exact knowledge which we term sciences, to their beginnings. The primitive man knew something of the properties of matter, for in his rude way he was a physicist in making fire, a chemist in cooking, a surgeon in binding up wounds, a geographer in knowing his rivers and mountains, a mathematician in counting his fingers. It was, of course, on such foundations that science proper began to be built up when the art of writing had come in, and society had entered on the civilized stage. Inasmuch, however, as it is mainly through counting and measuring that scientific methods have been attained, the author of this book gives special attention to the inquiry how men learned to count and measure. There is ineffaceable proof that the numerals arose out of the primitive counting on fingers and toes. This always led men to reckon by fives, tens, and twenties, and so they reckon still. The quinary mode of counting is employed by the negroes of Senegal; we never reckon thus orally, but we do in writing when we use the Roman numerals. The bigesimal counting, which is the regular mode in many languages, has its traces left in the midst of the decimal reckoning of civilized Europe, as in English "four score and three," French "*quatre-vingt-trois*," &c. Thus it can hardly be doubted that the modern world has inherited directly from primitive man his earliest arithmetic, worked on nature's counting board—the hands and feet. This also explains why the civilized world uses a numeral system based on the inconvenient number ten, which cannot be divided either by three or four. Were we starting our arithmetic afresh we should probably base it on the duodecimal notation, and use dozens and grosses instead of tens and hundreds.

As regards the art of mensuration, it may be reasonably surmised that man first measured as he counted, on his own body. We use this method still for rough work, as in taking a horse's height by hands, or stepping out the size of a carpet. From measuring feet in length men would soon come to reckoning the contents of an oblong floor in square feet, but to calculate the area of less simple figures required more difficult geometrical rules. The Greeks acknowledged the Egyptians as the inventors of geometry, that is, of "land measuring," and there is an ancient Egyptian manual of mensuration, written more than 1,000 years before Euclid's time, which shows what the denizens of the Nile land then knew about that science. From its figures and examples it appears that they used square measure, but reckoned it roughly. When they wanted the area of a circular field they subtracted one-ninth from the diameter and squared, obtaining a result which the reader will find on trial to be a fair approximation. It is plain that elementary geometry arose out of the practical work of land measurers, masons, carpenters, and builders.

The student who wishes to compare the mental habits of rude and ancient peoples with our own may follow with advantage Dr. Tylor's discussion of magic. He shows that in the so-called occult sciences, which notoriously retain a strong hold on the mass of the people, even in highly civilized communities, it is easy to make out principles which are intelligible enough if you can only bring your mind down to the childish state they belong to. Nor should we overlook how often the fancies of magic have been sources of real knowledge. Every one is aware how much exact science owes to astrology, and how much chemistry to alchemy; but the fact is not so well known that the magician gave the navigator his guide in exploring the world. It seems to have been the Chinese professors of geomancy, or rules of wind and water (by which a lucky site is chosen for building a house), who were the first to employ the magnetic compass to determine the aspects of the heavens.

The general outcome of Dr. Tylor's book is to demonstrate that the study of man and civilization is not only a matter of scientific interest, but at once passes into the practical business of life. We have in it the means of understanding our own lives and our place in the world, vaguely and imperfectly, it is true, but, at any rate, more clearly than was the case with any former generation.

M. W. H.